

## **REMARKS**

This application has been carefully reviewed in light of the Office Action mailed September 2, 2005.

A one-month time extension to respond to the Office Action has been requested.

Claim 1 has been amended. Reconsideration and favorable action in this application is respectfully requested.

The Examiner's indication that claims 9-14 are allowable if rewritten in independent form is noted with appreciation.

Claims 1, 3-4 and 8 have been rejected under 35 U.S.C. §102 (b) as being anticipated by Pennock and Sevenhans et al. Claim 1 has been amended, and it is respectfully submitted that claims 1, 3-4 and 8-14 are now in condition for allowance.

The present invention relates to a complex filter. Neither of the cited references disclose a complex filter, and therefore it is respectfully submitted that claims 1, 3, 4 and 8-14 are in condition for allowance.

The Pennock reference at figure 19 and column 9, lines 47-49 discloses a real lowpass filter, and not the present complex bandpass filter. At column 9, lines 47-49, a method of introducing a zero to a real lowpass transfer function is described, and not a complex bandpass transfer function as required in the present invention. The present invention is directed to a continuous-time complex system wherein the transfer function is unsymmetrical in the frequency domain, meaning that the transfer function transmits for positive frequencies and blocks for negative frequencies. The Pennock amplifier is directed solely to a continuous-time real system meaning that its transfer function is symmetrical in the frequency domain, or that it transmits equally for both positive and negative frequencies. Figure 15 of Pennock illustrates a real symmetrical lowpass transfer function.

The Sevenhans et al. reference discloses a real bandpass filter as shown in figure 1 and discussed at column 6, line 30 of Sevenhans et al. At column 9, lines 1-25, Sevenhans et al. presents a lossy real bandpass transfer function with a real zero that results in non-zero gain at zero frequency. As previously stated, the present invention

deals with a complex bandpass transfer function with purely imaginary zeros that result in deep transfer notches at the resonant frequency.

Therefore, it is submitted that neither of the cited references anticipate the present invention, and allowance of claim 1 is respectfully requested. Claims 3-4 and 8-14, further define the present invention, and it is respectfully submitted that these dependent claims are also in condition for allowance.

In view of the foregoing, allowance of claims 1, 3, 4, and 8-14 is respectfully requested. If the examiner has any questions regarding this amendment, the examiner is respectfully requested to telephone the undersigned attorney.

Respectfully submitted,



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